



Summary

Energetic engineer with a passion for problem solving and product design in a collaborative environment

Skillsets: Product Design, Graphic Design, R&D, Prototyping & 3D Printing, Mechatronics

Software: SketchUp, SolidWorks, Creo (Pro/E), PLM/ePDM, Office, Adobe Creative Suite, C, Matlab, Minitab

Career

Designer

June 2017 – present

Eldorado Climbing Walls | Boulder, CO

- Deliver custom engineered climbing wall designs to universities, gyms, and private clients
- Automated digital design processes: **achieved ~\$15k/yr savings** and freed up engineering labor
- Create engineering drawings and schematics for climbing walls, components, and processes
- Provide designs and technical support to manufacturing for a wide range of aesthetic styles
- Travel to client locations to evaluate structures and solve design-related issues during assembly

Associate R&D Engineer

June 2015 – June 2017

Sunrise Medical | Boulder, CO

- Design configurable assistive products, electronics housings and assemblies, and a wide range of both hard and soft accessories for advanced wheelchair systems using SolidWorks and free-form design tools
- Spearhead improvement and cost reduction efforts: **achieved ~\$42k/yr savings** on a pediatric product
- Prototype, test, and document new parts, assemblies, and processes involving GMP, GD&T, FMEA, and V&V
- Communicate with clinicians, managers, and technicians to solve design and manufacturing problems

Mechanical Engineering Intern, R&D

July 2014 – June 2015

Advanced Bionics | Valencia, CA

- Generate models and drawings for complex medical implants and test fixtures using SolidWorks and Creo
- Design machines for simulation, testing, and analysis of implantation using 3D medical imagery
- Create custom prototypes under tight deadlines to improve design, cost, and reliability of components
- Deliver product proposals, 3D printed parts, and test results to research teams and product management

Manufacturing Engineer

June 2013 – July 2014

Leading Technology Composites | Wichita, KS

- Refine and deliver design data to production, ensuring schedules and strict ITAR requirements are met
- Monitor and support new part production throughout planning, R&D, manufacturing, QA, FAI, and MRB
- Train technicians on tools and processes; identify and implement time, cost, and failure rate improvements

Product Engineer Co-Op

Sept 2008 – Nov 2012

Samtec, Inc. | New Albany, IN

- Create custom designs for injection molded parts and electrical assemblies with immediate deadlines
- Verify product performance through prototyping, inspection, and cycle testing

Assistant Manager of the Pool Complex

Summers 2007 – 2009

Crestview Country Club | Wichita, KS

- Oversee 20-30 lifeguards and servers during daily operations, formal events, and club competitions
- Stock goods and organize schedules to maximize efficiency, including alcohol handling and safety training

Academics	Master of Science, Mechanical Engineering			May 2019
	<i>University of Colorado</i> Boulder, CO			
	Certificates Design	Add. Coursework	Marketing & Tech Ventures	
	Engineering Management		Aesthetics of Design Mechanobiology	
	Graduate Design Capstone (3 students, CU)			2018 – 2019
	Adaptive Bicycle Trailer Sponsored by <i>Miracles for Mito</i>			
	<ul style="list-style-type: none"> • Identify needs of client and individuals with mitochondrial disease to maximize potential userbase • Evaluate braking, suspension, wheelbase, bicycle attachment, and adaptive accessories • Design, build, and test custom bicycle trailer including both custom and off-the-shelf components 			
	Bachelor of Science, Mechanical Engineering			Nov 2012
	<i>Rose-Hulman Institute of Technology</i> Terre Haute, IN			
	Minors Robotics	2011 – 2012	Charles Yohe Endowment	
	Biomedical Engineering	2008 – 2012	Rose-Hulman Merit Scholar	
	Music	2008 – 2012	ME Dept. Tech Assistant	
	Senior Design (4 students, RHIT)			2011 – 2012
	Robotics Starter Kit Expansion Module Sponsored by <i>National Instruments</i>			
	<ul style="list-style-type: none"> • Design and build custom robotic system based on existing mobile platform called DaNI • Prototype factory automation by adding localization, navigation, inspection, and sorting routines • Interface numerous hardware sensors and program AI using LabVIEW and Matlab 			
Select Honors	1st Place Mobile Robotics Navigation	individual, RHIT	C	2012
	1st Place Machine Component Design	team, RHIT	Minitab	2010
	1st Place Introduction to Design	team, RHIT	various	2008
	1st Place Graphical Communications Design	individual, RHIT	Solid Edge	2008
Extras & Non-Profits	Social Media Manager, FFRF 501(c)(3) non-profit – Denver, CO			2014 – 2016
	Coordination Assistant, Cybathlon para-athletic competition – Zurich, Switzerland			Oct 2016
	Planter, Trees for Life eco restoration project – Terre Haute, IN			2011 – 2012
	Humanitarian relief and home building – Mexico			2000 – 2008